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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,173	04/20/2000	Yehuda Afek	27/163	5884

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EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/556,173

Applicant(s)

AFEK ET AL

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 19, 25 and 32-37 is/are rejected.
- 7) ☒ Claim(s) 4, 7-18, 20-24 and 26-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Specification

1. The abstract of the disclosure is objected to because it is longer than 150 words.

Correction is required. See MPEP § 608.01(b).

Drawings

2. The drawings are objected to because in Figure 3, the arrow pointing to the clue 011* should point to the clue 0001* because it represents 0001* in the trie of router 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 12-13 are objected to because in claim 12, line 2, "If" should be --if--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-6, 19, 25, 32 and 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Rekhter (US 5,917,820).

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4. Regarding claims 1, 19, 25, 32 and 35-36, Rekhter discloses a method for routing data packets from a forwarding router to a downstream router (Figure 2, items 130 and 132). The method comprises the steps of providing a data packet with a header including a destination address (Figure 6, step 608; col. 10, lines 12-20) which includes at least one inherent bit string (note: IP address for routing -- col. 1, lines 61-67), providing the forwarding router with a database (Figure 4, item 412) including a plurality of prefixes (col. 8, lines 40-45), looking up via a first data structure a prefix that best matches the bit string of the address of the data packet (col. 8, lines 40-45), and attaching a clue that is related to the best matching prefix to the data packet (tag, col. 8, lines 55-57; col. 10, lines 53-56; col. 12, lines 30-34). The clue includes/is a tag.

5. Regarding claim 2, the clue is written in the header of the data packet (col. 13, lines 1-2).

6. Regarding claim 3, the address of the data packet is the destination address or source address (col. 10, lines 12-20).

7. Regarding claim 5, the clue may be of any value (col. 10, lines 21-25).

8. Regarding claim 6, the method uses a trie lookup (Figure 4, item 408; col. 4, lines 49-55 and 60-62).

9. Regarding claim 37, the router is in a TCP-IP network and a tag switching network (Figure 4; col. 1, lines 54-58).

Claims 33-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Tappan (US 6,295,296).

10. Regarding claims 33-34, Tappan discloses a method of routing data packets from a forwarding router to a downstream router in an MPLS network (Figure 2; col. 2, lines 45-48 and

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59-62). The method comprises providing each data packet with a header including an address (col. 5, lines 50-52; Figure 3) which includes an inherent bit string (note: IP address for routing -- col. 1, lines 54-61), providing the forwarding router with a forwarding database including several prefixes (Figure 6), and for each data packet looking up in the database the prefix that best matches the bit string of the address of each data packet (Figure 6, item 50), and providing data packets having the same best matching prefixes a label (Figure 6, item 60; col. 5, lines 55-64), and attaching to each data packet a clue that is related to the best matching prefix (col. 6, lines 1-5). The clue includes/is the label.

Allowable Subject Matter

11. Claims 4, 7-18, 20-24 and 26-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Garcia-Luna-Aceves et al. (US 2002/0129086) and Chandranmenon et al. ("Trading Packet Headers for Packet Processing"; Figure 6, page 149) each discloses providing an index to a downstream router to aid in packet header processing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays from 11:30 AM to 8:00 PM ET.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The centralized fax number for the Patent Office is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see pair.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin C. Harper



May 15, 2004



DANGTON
PRIMARY EXAMINER